Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte JEFFREY ALLEN CLARK,
BRIAN MICHAEL CURTIS, and
ANDREW JOSEPH WISNIEWSKI

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Appeal No. 2003-1828
Application No. 09/592,080

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ON BRIEF

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Before CAROFF, McQUADE, and NASE, Administrative Patent Judges.

CAROFF, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-17, all the claims pending in appellants' involved application.

The claims are directed to an air bag sensor module having a fastener for securing the base of the module to a vehicle mounting structure.

Claim 1, which is one of two independent claims, is representative of the subject matter encompassed by the claims on appeal:

1. An air bag sensor module for a vehicle comprising:

a base having an aperture extending therethrough, said aperture having a retaining portion;

a sensor secured to said base for sensing vibrations caused by a crash of the vehicle;

a fastener having a shaft with a head and a threaded portion opposite said head with said threaded portion temporarily retained within said retaining portion in a shipping position, said threaded portion having a minor diameter with said shaft portion having a shaft diameter less than said minor diameter.

The prior art references relied upon by the examiner on appeal are:

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| Kuzdak | 6,106,207 | Aug. 22, 2000 |
| | (effective filing date: | Aug. 11, 1999) |
| Metcalf | 1,719,301 | Jul. 2, 1929 |

The following two rejections are before us for consideration:

I. Claims 1-7, 9-15 and 17 stand rejected for obviousness under 35 U.S.C. § 103 in view of admitted prior art taken with Kuzdak.

II. Claims 8 and 16 also stand rejected for obviousness under 35 U.S.C. § 103 in view of the admitted prior art taken with Kuzdak, and further taken in combination with Metcalf.

We have carefully considered the record on appeal in light of the positions taken by the appellants and by the examiner. Having done so, we shall affirm the examiner's rejection (I) only as to claims 1-3, 7, 9-14 and 17, and reverse the rejections (I) and (II) as to claims 4-6, 8 and 15-16, for the following reasons:

With respect to claims 1-3, 7, 9-14 and 17, we conclude that the admitted prior art taken with Kuzdak supports a prima facie case of obviousness. As indicated in appellants' specification (page 1), typically air bag sensor modules are secured to a vehicle structure using fastening elements. Preferably, the fastening elements are secured to the vehicle structure only under the compressive load of a threaded fastener to ensure optimal crash pulse transmission. This is not in dispute.

Kuzdak relates generally to fastener assemblies, and teaches that it is desirable for the fastener to be "captured" or retained on a member to be attached to a support structure so that the fastener is readily available when needed to effect the attachment (col. 1, l. 1-15). We agree with the examiner that it would have been prima facie obvious, within the purview of 35 U.S.C. § 103, to apply the teachings of Kuzdak in the context of securing on air bag sensor module to a vehicle mounting

structure in order to obtain the advantages of a captive or retained fastener as disclosed by Kuzdak. While Kuzdak may address an additional problem, i.e., preventing the pointed end portion of a fastener from protruding through the retaining member (a problem which may or may not be of concern when securing an air bag sensor module to a vehicle mounting structure), that has no bearing on the fact that Kuzdak otherwise provides the requisite motivation for using a captive fastener arrangement to secure a base member to a support structure. The motivation arises from the desire to reap the benefit of a "captive" fastener which is taught by Kuzdak.

With regard to the limitation in claims 1 and 11 that the diameter of the fastener shaft be less than the minor diameter of the threaded portion of the fastener, we are of the opinion that that particular limitation is fairly suggested by Kuzdak (col. 3, l. 6-11) which indicates that, in the assembled position, the unthreaded mid-portion (or shaft) of the fastener extends within the threaded passage (or aperture) in the base member, but is free of any threaded engagement therewith, as shown in Figure 4. By implication, therefore, the shaft diameter should be less than the minor diameter of the threaded aperture and less than the

corresponding minor diameter of the threaded portion of the fastener.

As regards claims 3 and 14, we agree with the examiner that "self-tapping" threads are patentably indistinguishable from the fastener threads of Kuzdak since, in essence, "self-tapping" is not a structural limitation since it depends upon the composition of the engaged materials.

However, the same cannot be said for the more specific limitations set forth in claims 4 and 15 which require a particular juxtaposition of the self-tapping threads and retaining material within the aperture of the base member, such that the self-tapping threads cut through the retaining material when moved from a shipping position to an installed position. For this reason, we find the limitations of claims 4 and 15 to be patentably distinguishable from Kuzdak. Accordingly, the examiner's rejection of claims 4 and 15, as well as dependent claims 5 and 6, is reversed.

Additionally, as to the rejection of claims 8 and 16, we find that the examiner's reliance upon Metcalf is misplaced. While Metcalf may show a pocket (8) adjacent a retaining portion of an aperture in which a fastener is retained, in our opinion the examiner has failed to establish the requisite motivation for

one of ordinary skill in the art to use the pocket of Metcalf in Kuzdak, especially in view of the fact that the retaining portion of the aperture in Metcalf (oblong opening 3) is fundamentally different in structure from that shown in Kuzdak (internally threaded passage 26). Accordingly, we also reverse the examiner's rejection of claims 8 and 16.

In closing, we note that appellants have included some web pages with their reply brief for the purpose of demonstrating that self-tapping threads are unique. It is inappropriate to introduce new evidence by way of a reply brief without a showing of good and sufficient reasons why the evidence was not earlier presented. In this regard, see 37 CFR § 1.195. Accordingly, we have not considered the web pages in question. However, even if we were to consider those web pages, appellants have failed to indicate how those pages demonstrate that self-tapping threads are structurally "unique."

We also note that there is no antecedent basis for "said self-tapping threads" in claim 15. Apparently, claim 15 may have been intended to depend from claim 14 rather than claim 10. Accordingly, an appropriate amendment of claim 15 should be made to correct the noted defect.

For the foregoing reasons, the decision of the examiner is affirmed as to claims 1-3, 7, 9-14 and 17, and reversed as to claims 4-6, 8 and 15-16.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

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| MARC L. CAROFF<br>Administrative Patent Judge | ) | |
| JOHN P. McQUADE<br>Administrative Patent Judge | ) | BOARD OF PATENT APPEALS AND INTERFERENCES |
| JEFFREY V. NASE<br>Administrative Patent Judge | ) | |

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